



## AF-150 DMX fog machine

Musikhaus Thomann e.K.

Treppendorf 30

96138 Burgebrach

Germany

Telephone: +49 (0) 9546 9223-0

E-mail: [info@thomann.de](mailto:info@thomann.de)

Internet: [www.thomann.de](http://www.thomann.de)

30.09.2013

## Table of contents

<b>1</b>	<b>General notes</b> .....	<b>4</b>
<b>2</b>	<b>Safety instructions</b> .....	<b>8</b>
<b>3</b>	<b>Features</b> .....	<b>14</b>
<b>4</b>	<b>Installation</b> .....	<b>15</b>
<b>5</b>	<b>Starting up</b> .....	<b>16</b>
<b>6</b>	<b>Connections and operating elements</b> .....	<b>18</b>
<b>7</b>	<b>Operating</b> .....	<b>26</b>
7.1	Remote control functions.....	28
7.2	Function in 'DMX' mode.....	29
<b>8</b>	<b>Technical specifications</b> .....	<b>31</b>
<b>9</b>	<b>Plug and connection assignments</b> .....	<b>32</b>
<b>10</b>	<b>Troubleshooting</b> .....	<b>33</b>
<b>11</b>	<b>Cleaning</b> .....	<b>35</b>
<b>12</b>	<b>Protecting the environment</b> .....	<b>37</b>

## 1 General notes

This user manual contains important information on safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to other users, be sure that they also receive this manual.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

## Symbols and signal words

This section provides an overview of the symbols and signal words used in this user manual.

Signal word	Meaning
<b>DANGER!</b>	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
<b>WARNING!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
<b>CAUTION!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
<b>NOTICE!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – flammable substances.
	Warning – hot surface.
	Warning – suspended load.
	Warning – harmful or irritating substances.

Warning signs	Type of danger
	Warning – danger zone.

## 2 Safety instructions

### Intended use

This device is intended to be used to produce artificial fog by vaporising fog fluid. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

### Safety



#### DANGER!

#### Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



**DANGER!**

**Electric shock caused by high voltages inside**

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.



**DANGER!**

**Electric shock caused by short-circuit**

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.



### **WARNING!**

#### **Risk of burns from flammable liquids**

The use of flammable liquids in this device may cause severe burns and damage to property.

Always use approved fog fluids. Never fill flammable liquids into the tank of the device.



### **WARNING!**

#### **Risk of burns**

The generated fog at the fog nozzle is hot and can cause burns. Occasionally hot fluid drops may escape from the nozzle.

The distance of persons and objects to the fog nozzle must be at least fifty centimetre (1.6 feet).

Do not touch the fog nozzle during and shortly after operation. It becomes very hot and may cause burns even several hours after switching off the device.



**WARNING!**

**Risk of slipping caused by condensation**

Fog machines can produce condensation. Do not direct the fog to floors. Floors and surfaces can become slippery by condensed fog.

Check at regular intervals whether it is possible to walk on the floors without a slipping hazard, and, if necessary, remove the condensation.



**WARNING!**

**Health hazard caused by fog fluid handling**

Fog fluid does contain glycols complying with the regulations for foodstuffs. However, it may be harmful if swallowed.

Do not induce vomiting. Seek medical advice immediately. Keep fog fluid in a safe place. If the fog fluid comes into contact with eyes rinse thoroughly with water.



### **CAUTION!**

#### **Possible respiratory problems**

The device can be operated safely only with the approved fog fluid. The use of other fluids can release toxic gases. Claims for damages caused by the use of non-approved fluids shall be excluded.

Do not create fog in closed or poorly ventilated areas.

Do not expose persons with health problems (such as allergic respiratory conditions, asthma) to artificial fog.



### **NOTICE!**

#### **Risk of fire**

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.



### **NOTICE!**

#### **Operating conditions**

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



### **NOTICE!**

#### **Power supply**

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

## 3 Features

This fog machine is suitable for use in clubs, bars, discotheques and on stages

Special features of the device:

- Control via DMX (one channel) or via the supplied remote control
- Suitable for mobile use due to compact design
- Bracket for mounting on truss or ceiling included

## 4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.



### WARNING!

#### Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

You can install the device on the wall, the ceiling or on the floor. The device must not be positioned with more than 15° inclination during operation. The unit requires 20 cm clearance on the sides and above.

## 5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.



### NOTICE!

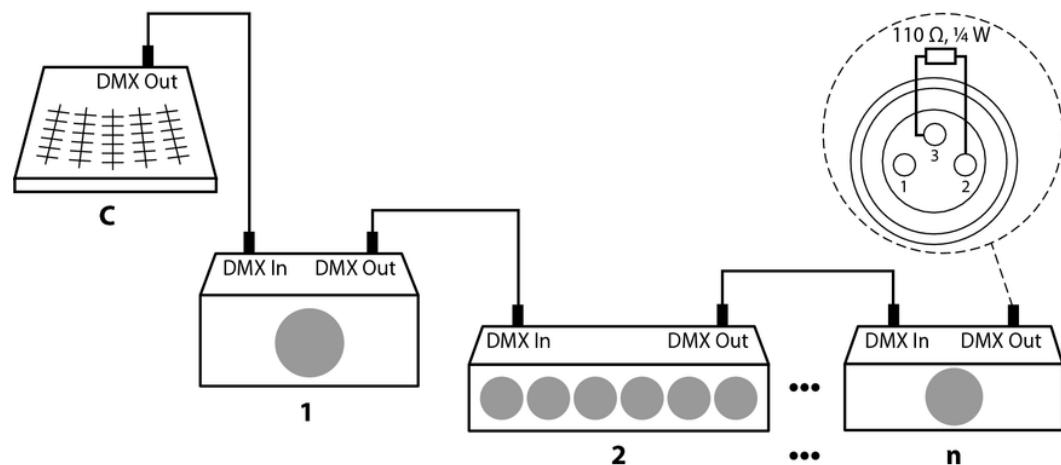
#### Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

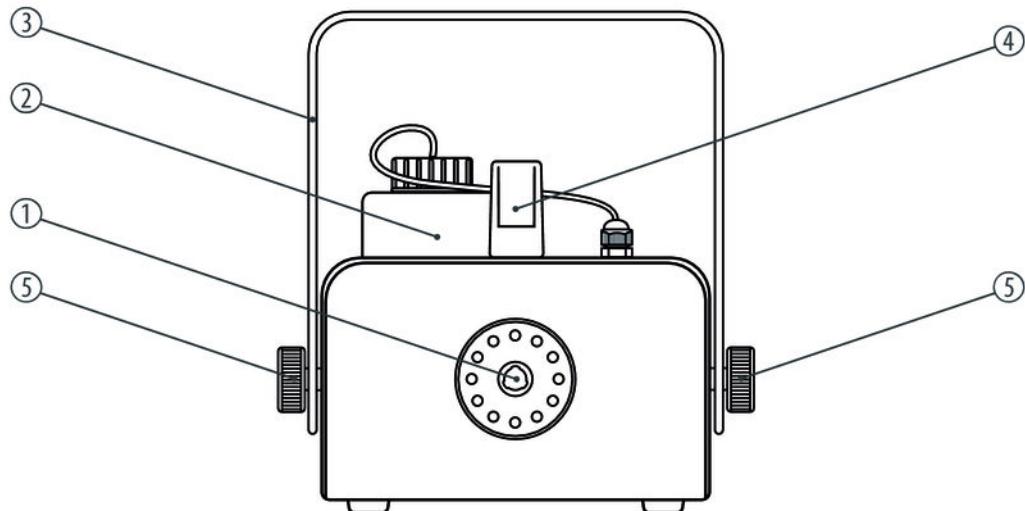
**Connections in DMX mode**

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ( $110\ \Omega$ ,  $\frac{1}{4}\ W$ ).



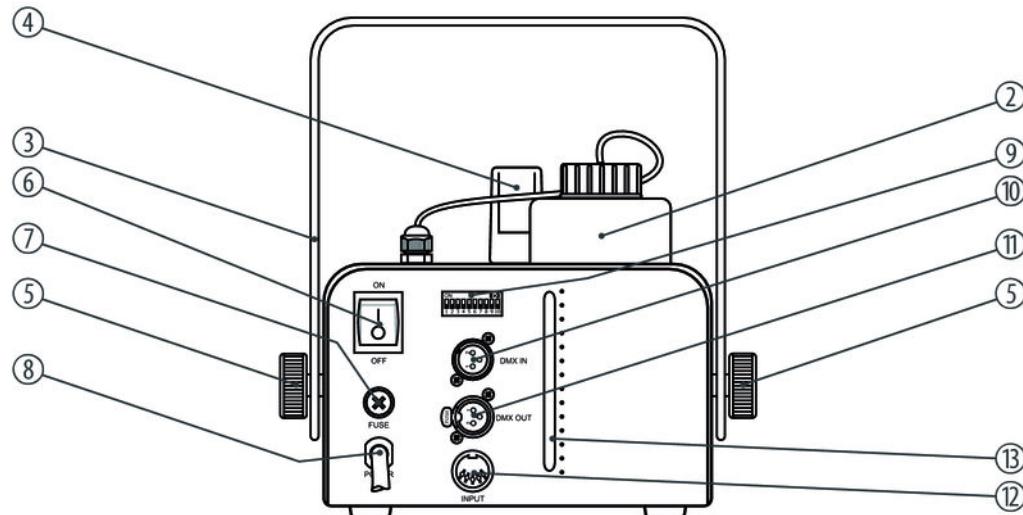
## 6 Connections and operating elements

### Front panel



1	Fog nozzle.
2	Fog fluid container with screw-cap.
3	Bracket for hanging.
4	Carrying handle.
5	Locking screws for the mounting bracket.

### Rear panel



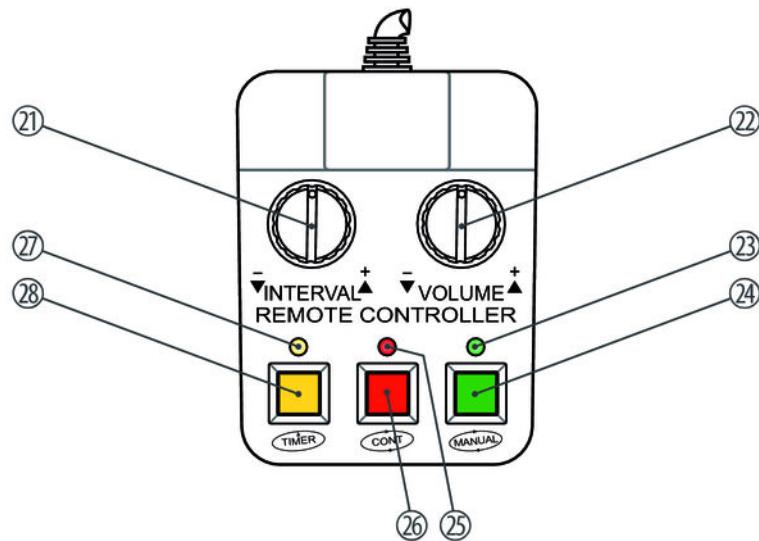
2	Fog fluid container with screw-cap.
3	Bracket for hanging.
4	Carrying handle.
5	Locking screws for the mounting bracket.
6	Main switch. Turns the device on and off.
7	<b>FUSE</b> Fuse holder.
8	<b>POWER</b> Mains cable for power supply.
9	DIP switch for setting the DMX address.
10	<b>DMX IN</b> DMX input.
11	<b>DMX OUT</b> DMX output.

12 **CONTROLLER INPUT**

Connection for the remote control.

13 Liquid level indicator.

## Remote control



AF-150 DMX

**thomann**  
MUSIC IS OUR PASSION

21	Rotary control [ <i>INTERVAL</i> ] With this control you can set the time interval between two fog outputs in a range between 10 and 200 seconds.
22	Rotary control [ <i>VOLUME</i> ] With this control you can adjust the amount of fog to be produced by the device with each blast (between 0% and 100%).
23	The green LED indicates that the unit has reached the operating temperature necessary to produce fog.
24	Pushbutton [ <i>MANUAL</i> ] Push this button for maximum fog output regardless of other settings.
25	The red LED indicates that continuous operation is turned on.
26	Pushbutton [ <i>CONT</i> ] Press this switch to turn continuous operation on or off. In this mode, the fog volume you have set with the [ <i>VOLUME</i> ] control is continuously emitted.

27	The yellow LED indicates that the Timer function is turned on.
28	Pushbutton <i>[TIMER]</i> With this switch, you can turn the Timer function on or off. In this mode, the amount of fog set by the <i>[VOLUME]</i> control is emitted within the time intervals that you have set with the <i>[INTERVAL]</i> control.

## 7 Operating

### Filling the unit



#### NOTICE!

#### Possible damages caused by unsuitable fog fluid

Fog liquids not approved by the manufacturer may permanently damage the unit.

Only use the fog fluids listed on [www.thomann.de](http://www.thomann.de) and follow their instructions for use.

First, make sure the unit is disconnected from the mains.

Open the screw-cap of the liquid container and fill in the fog fluid. Make sure that no fluid is spilled or gets into the device. The easiest way is using a funnel. The container capacity is 2.3 litre.

Screw the cap firmly back on.

## Turning the unit on



### NOTICE!

#### Fire hazard

Do not operate the machine unattended.

Make sure that the remote control is connected.

Connect the device to the mains and switch it on with the main switch.

As soon as the required operating temperature is reached, the green LED on the remote lights up. The device is now operational.

## Operation

When operating, always ensure that there is sufficient fog fluid in the liquid container to avoid no-load running.

## Turning the unit off

Disconnect the device from the mains. Transport the device only when it is completely cooled down. To avoid leaking fog fluid during transport, you should transport the device only with empty fluid container.

## 7.1 Remote control functions

When the device is not controlled by DMX, it supports the following operating modes that can be selected with the remote control:

- Manual operation with maximum fog

Press the pushbutton *[MANUAL]*. This mode takes precedence over all others. This means that you don't have to stop the timer function and continuous operation before you press the button.

- Continuous operation with adjustable amount of fog

In this mode, the amount of fog you have set with the *[VOLUME]* control is continuously emitted. Press the *[CONT]* switch to turn the operating mode on or off.

- Timer-controlled operation with adjustable amount of fog

In this mode, the amount of fog you have set with the *[VOLUME]* control is emitted at regular intervals (adjustable with the *[INTERVAL]* control). Press the *[TIMER]* switch to turn the operating mode on or off. The yellow LED indicates that the Timer function is enabled. Each fog burst lasts about three seconds.

## 7.2 Function in 'DMX' mode

### Setting up the DMX address

The value of the DIP switches 1-9 is binary coded. To set the desired DMX address, set the DIP switches so that the sum of the resulting numbers yields the desired DMX address. Please orient yourself by the following table:

SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	DMX address
0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	1	0	2
0	0	0	0	0	0	1	0	0	4
0	0	0	0	0	1	0	0	0	8
0	0	0	0	1	0	0	0	0	16
0	0	0	1	0	0	0	0	0	32
0	0	1	0	0	0	0	0	0	64

<b>SW9</b>	<b>SW8</b>	<b>SW7</b>	<b>SW6</b>	<b>SW5</b>	<b>SW4</b>	<b>SW3</b>	<b>SW2</b>	<b>SW1</b>	<b>DMX addresse</b>
0	1	0	0	0	0	0	0	0	128
1	0	0	0	0	0	0	0	0	256

0: DIP switch is in 'OFF' position. 1: DIP switch is in 'ON' position.

Example: To set the DMX address 10 set DIP switches 2 and 4 to 'ON', all others to 'OFF'. The highest possible DMX address is 511 (all DIP switches to 'ON').

DIP switch 10 has no function.

## DMX assignment

<b>Channel</b>	<b>Value</b>	<b>Function</b>
1	Setting the amount of fog 0...255	No fog output (0 %) to maximum fog output (100 %)

## 8 Technical specifications

Heater power	800 W
Fog output	approx. 850 m <sup>3</sup> /min
Fluid consumption	approx. 95 ml/min
Fog fluid container capacity	2.3 l
Warm-up time	approx. 8 min
Operating supply voltage	AC 230 V ~, 50 Hz
Fuse	5 A / 250 V, slow-blow, 5 mm × 20 mm
Power consumption	800 W
Dimensions (W × D × H)	290 mm × 450 mm × 265 mm
Weight	5.5 kg

## 9 Plug and connection assignments

### Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

### DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.



Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX-, 'cold signal')
3	Signal (DMX+, 'hot signal')

## 10 Troubleshooting

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work	Check the mains connection and the main fuse.
No haze output	<ol style="list-style-type: none"><li>1. Check the fluid level in the fog container.</li><li>2. Switch the device off and check the hose that leads into the fluid container for flow.</li></ol>
No response to the DMX controller	<ol style="list-style-type: none"><li>1. Check the address settings and the DMX polarity.</li><li>2. Try using another DMX controller.</li><li>3. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits.</li></ol>

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at [www.thomann.de](http://www.thomann.de).

## 11 Cleaning



### NOTICE!

#### Possible damages caused by unsuitable cleaning agents

Cleaners not approved by the manufacturer may permanently damage the unit.

Only use the fog machine cleaners listed on [www.thomann.de](http://www.thomann.de) and follow their instructions for use.

Clean the appliance after every 30 operating hours, or if it was not in use for a longer period of time.

#### Procedure

- 1.** Make sure that the device is turned off, disconnected from the mains and completely cooled down.
- 2.** Place the unit in a well ventilated place.
- 3.** Take the suction hose out of the fluid container of the fog machine and put it into the bottle with the cleaning fluid.
- 4.** Connect the device to the mains and turn it on with the main switch.
- 5.** Wait until the required operating temperature has been reached.

- 6.** ➤ Switch the unit to continuous operation and release fog for about 20 seconds.
- 7.** ➤ Put the suction hose back into the fluid container of the fog machine and release fog for another 20 seconds. This rinses the pipes.
  - ⇒ The cleaning is completed.

## 12 Protecting the environment

### Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

### Disposal of your old device



This device is subject to the European directive 2012/19/EU.

Do not dispose of the device with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.





**Musikhaus Thomann e.K. · Treppendorf 30 · 96138 Burgebrach · Germany · [www.thomann.de](http://www.thomann.de)**